

REMARKS

In this application, claims 135, 137, 138, 140-143 and 145-160 are under consideration.

This application has been withdrawn from appeal, based on Applicants' Appeal Brief filed on December 4, 2006, and prosecution has been reopened.

WITHDRAWN REJECTION 35 U.S.C. § 103

It is noted that Applicants' arguments with respect to the rejection of the claims under consideration as being obvious over Brinster and Zimmerman (1994) in view of Vogel and Sarver (1995) have been fully considered and the Examiner has withdrawn this rejection in view of a new rejection which will be discussed.

NEW REJECTION

CLAIM REJECTIONS - 35 U.S.C. § 102

The claims under consideration are newly rejected under 35 U.S.C. § 102(e) as being anticipated by Brinster et al. (U.S.P.N. 5,858,354), filed November 21, 1994, previously cited, as evidenced by Cotten et al. (Virology, 213-494-502, 1995). This rejection is respectfully traversed.

It appears to be the Examiner's position that, because Brinster et al describes introduction of genetic material into primitive cells (such as embryonic stem cells), that process can also be extended to introduce material into any cell including sperm cells so that Brinster describes modification of male germ cells as defined in the current claim. Contrary to this view and

as previously discussed with respect to the disclosure of Brinster et al, this is not the case.

Brinster et al does not describe the introduction of genetic material to male germ cells because Brinster only describes modification of patent mouse stem cells. The only meaningful disclosure in Brinster et al is concerned with modification of mouse stem cells and the properties and makeup of pluripotent cells are different from germ cells, e.g., because of different chromosome numbers and active genes; and, as such, stem cells and germ cells can be expected to behave differently in response to the introduction of new genetic material.

Contrary to the Examiner's position, what Brinster envisioned is clearly not disclosed beyond the disclosure of the work with embryonic stem cells. Based on Brinster et al, the transfection of "primitive" germ cells is pure speculation and that reference clearly does not enable such transfection. Hence, a germ cell is not a stem cell, and, as such, Brinster does not describe the male germ cells of the invention. Just because a stem cell has been modified, this does not teach the process of modifying a cell that can differentiate from that stem cell. His material is clearly not relevant beyond the modification of stem cells and as such his material cannot anticipate the present claims.

CLAIM REJECTION - 35 U.S.C. § 103


Claims 135, 140 and 141 are being newly rejected under 35

U.S.C. § 103(a) as being unpatentable over Brinster et al (U.S.P.N. 5,858,354), in view of Naldini et al. (1996 Science 272:263-267, cited in IDS filed May 20, 2004). This rejection is respectfully traversed.

It is believed that the remarks presented above, taken together with earlier analysis of Brinster et al, clearly have shown that Brinster does not anticipate or teach the claimed method as the Applicants have shown modification of a stem cell does not teach a process of modifying a cell that can differentiate from that stem cell. Given the perceived lack of relevance of Brinster et al, for at least the reasons discussed above, the material disclosed in Naldini et al fails to provide missing features not found in Brinster, which would lead one skilled in the art to the present claims.

Thus, it is believed that the present claims contain a clear inventive step not disclosed, nor enabled by the combination of the cited references and, this being the case, reconsideration, withdrawal of the present rejections and allowance of the claims are respectfully requested.

Respectfully submitted,
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